no general terms by which it is possible to relate the inactivated "throw" with the ether "throw." Quite an arbitrary standard is chosen upon which to fix the reagent to be applied. Move one to the right or left on the Bendien scale and the ratio becomes numerically quite different, and may even be reversed in regard to the sign of the numerator-denominator difference. In other words, a serum showing a non-malignant reaction when associated with one Bendien number may show a malignant reaction with the next. If the ratio were an expression of some property of the serum then there ought to be at least some semblance of order to be made of the changing results as conditioned by slight systematic alterations such as that mentioned. In practice we find these changes as recorded by the ratio to be chaotic, and this fact alone raises doubts as to whether diagnosis based upon this highly unstable factor could be made dependable to the extent of 98 per cent.

One final point confirms our scepticism. We have found no evidence that the ratio has any relation whatever either to the general condition of the patient or to the degree of malignancy. In the large number of cases dealt with in the original paper no connexion was traced either. Such correspondence as existed between clinical malignancy and the reaction was arrived at on the basis of the primary Bendien reaction, not of the ratio. It would be extremely unlikely that any factor capable of picking out so exactly one type of disease from all other

pathological cases, and especially one that was capable of being recorded in arithmetical form, would not reveal in the course of extensive examination some directional evidence of the course or severity of the disease which it diagnoses.

SUMMARY

The application of the Cronin Lowe reaction as a diagnostic test for malignancy has been studied in the course of an examination of a series of fifty-nine pathological cases. In our hands the reaction gives a correct result in only 60 per cent. of cases. Attention is drawn to certain inherent defects in the method as a means of diagnosis. Our conclusion is therefore that the method has no diagnostic value.

We have to express our warmest thanks to the physicians and surgeons of Charing Cross Hospital, and to Dr. Avery of the London Jewish Hospital, for permitting access to their patients and lending their helpful assistance in points of diagnosis; to Dr. H. W. C. Vines for placing at our disposal his histological and post-mortem findings; to Mr. L. D. Scott of the biochemical department for his co-operation and technical assistance; and also to the ward sisters for their kind help.

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SIMPLE ACHLORHYDRIC ANAEMIA IN ADULT MALES

BY

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Cases of ear diseases were formerly somewhat wittily divided into those which benefited by syringing and those in which syringing did no good. Similarly, cases of anaemia could be divided into (1) those which benefited by iron, and (2) those in which iron did no good. Cases of anaemia of the first group might well have been supposed to be due to a deficiency in the amount of iron ingested or to a defect in its assimilation, but if we were to carry our analogy further we should come to divide ear diseases into (1) "syringing-deficiency" cases, and (2) all the other cases. With regard to cases of auricular fibrillation in which digitalis is a necessary "food," one may truly speak of "digitalis-deficiency symptoms" arising on the omission of digitalis. In regard to anaemia, some cases are now acknowledged to be really due to iron deficiency in some way or other, notably a large proportion of the cases in which anaemia is associated with gastric achlorhydria or extreme hypochlorhydria, and which have been grouped together by Wits under the heading "simple achlorhydric anaemia."

We cannot here enter into the history of the clinical separation of this group of cases from those of pernicious anaemia (Addison's anaemia, Biermer's anaemia), in nearly all of which there is gastric achlorhydria or achylia, but which are not markedly benefited by the administration of iron. It will be sufficient for us to point out that L. J. Wits¹ found that of cases of chronic microcytic (hypochromic) anaemia 86 per cent. occurred in women, and that the women affected were mostly in

the reproductive period of life and of the so-called "asthenic constitution"; gastric achlorhydria was present in 80 per cent. of the women, constituting cases of "simple achlorhydric anaemia" (Wits and others). In regard to the occurrence of "simple achlorhydric anaemia" in children, we would refer especially to papers of F. M. B. Allen and G. P. McCullagh²—three of whose cases were in one family—and of L. G. Parsons,³ who thinks that simple achlorhydric anaemia of adults is very similar to, if not identical with, "nutritional anaemia of infancy."

During recent years we have seen four cases which we class as simple achlorhydric anaemia in adult males. During the same period under observation at the hospital there have been at least forty typical cases of simple achlorhydric anaemia in women. Thirty of these were summarized by Dr. O. B. Bode and Dr. W. Weisswange,⁴ and Dr. O. B. Bode and Dr. G. Krumm⁵; these patients were mainly between 40 and 50 years of age, and an "asthenic constitution" was not specially noted in them. Following are résumés of the four cases in adult males.

CASE REPORTS

1. A dock labourer, aged 56, came under observation in September, 1930. He was a fairly well built man, but pale, and had for several months been troubled with breathlessness on exertion. Blood count: haemoglobin, 40 per cent.; erythrocytes, 3,700,000; colour index, 0.54; leucocytes, 4,650 per c.mm. (basophils 1 per cent., eosinophils, 6 per cent., polymorphonuclears 73 per cent., lymphocytes 27 per cent., monocytes 3 per cent.). Fractional examination of the gastric contents showed complete achlorhydria, even after subcutaneous injection of histamine. Negative Wassermann reaction. Brachial blood pressure: 130/80 mm. Hg. Nothing special was noted by ordinary examination of the thorax, abdomen, urine, etc.

The patient was treated with ferrum reductum and with hydrochloric acid and pepsin with meals. In January, 1933 (about two and a quarter years later), the blood count gave: haemoglobin, 95 per cent.; erythrocytes, 4,800,000. He still had complete achlorhydria, even after subcutaneous injection of histamine; the gastric contents contained a little

pepsin after the histamine. Dr. Price-Jones, who kindly examined blood films, stated that they still showed traces of anaemia; there were anaemic red cells (quite a number), some achromic and many hypochromic; the mean diameter was on the small side, and there was a trace of microcytosis. The Price-Jones curve had the look of a normal curve, but the variability was too high.

2. The second case was that of a sausage maker, aged 34, who came under observation in September, 1932, with a history of having been subject to recurrent diarrhoeal attacks for the past ten or eleven years. Fractional examination of the gastric contents showed complete achlorhydria, even after subcutaneous injection of histamine, but pepsin was present. Brachial blood pressure: 120/75 mm. Hg. Negative Wassermann reaction. Though the patient looked somewhat pale, his blood showed hardly any anaemia, and he was treated only by hydrochloric acid and pepsin with his meals, and by *carbo animalis* when he had diarrhoea.

On October 21st, 1933, he said that he still tended to have loose motions and "dared not eat raw fruit" for fear of inducing a regular attack of diarrhoea. Blood count: haemoglobin, 81 per cent.; erythrocytes, 4,320,000; colour index 0.94; leucocytes, 4,800 per c.mm. (eosinophils 1 per cent., polymorphonuclears 70 per cent., lymphocytes 19 per cent., monocytes 10 per cent.). Dr. Price-Jones examined blood films in February, 1933, and wrote that there were a very few anaemic red cells scattered through the films, but too few to estimate; the mean diameter of the red cells was on the low side of normal mean; there was no microcytosis, and the variability of the distribution was also quite healthy. This case should perhaps be called one of achlorhydria rather than one of achlorhydic anaemia, but for a man the blood count really shows slight anaemia. We have recently seen two young women, aged 21 and 18 respectively, without decided anaemia though one showed complete achlorhydria and the other complete achylia.

3. An instructor of boxing, swimming, and cricket, aged 64, came under observation in May, 1933, for cutaneous pruritus in upper limbs and back. He was a well-built, slightly anaemic man. Blood count: haemoglobin, 55 per cent.; erythrocytes, 4,200,000; colour index, 0.65; leucocytes, 3,600 per c.mm. Fractional examination of the gastric contents showed complete achlorhydria, even after subcutaneous injection of histamine; a little pepsin present after the histamine. Brachial blood pressure: 165/90 mm. Hg. Negative Wassermann reaction. Otherwise nothing special. Fasting blood sugar: 0.095 per cent. He was treated with ferrum reductum and with hydrochloric acid and pepsin after meals. In July, 1933, his blood count was: haemoglobin, 71 per cent.; erythrocytes, 4,680,000; colour index, 0.76; leucocytes, 7,300 per c.mm. (eosinophils 5 per cent., polymorphonuclears 53 per cent., lymphocytes 33 per cent., monocytes 9 per cent.). No ova of intestinal worms were found in the faeces. A certain amount of pruritus still remains.

4. A commercial traveller and collector, aged 32, came under observation in December, 1932, with the history of looking pale for a long while and having had dyspeptic troubles for the previous four months. For some time he had had a sore tongue, which the dentist told him was not due to his teeth. In 1931 he had double pneumonia, and (at another hospital) was given two blood transfusions. Blood count (December, 1932): haemoglobin, 38 per cent.; erythrocytes, 2,400,000; colour index, 0.8; leucocytes, 5,750 per c.mm. (polymorphonuclears 77 per cent., lymphocytes 20 per cent., monocytes 3 per cent.); anisocytosis, poikilocytosis, and a little basophilia punctata. Fractional examination of the gastric contents showed complete achlorhydria, even after the subcutaneous injection of histamine; pepsin present after the histamine. Brachial systolic blood pressure: 115/45 mm. Hg. Negative Wassermann reaction. Vitiligo. In February, 1933, the spleen could be felt during inspiration.

The presence of achlorhydria was confirmed in January and July, 1933. In July no enlargement of the spleen could be detected, and the blood count gave: haemoglobin, 75 per cent.; erythrocytes, 5,000,000; colour index, 0.75; leucocytes, 6,950 per c.mm. (eosinophils 2 per cent., polymorphonuclears 62 per cent., lymphocytes 29 per cent., monocytes 7 per cent.); very slight anisocytosis and poikilocytosis. The out-patient treatment, doubtless somewhat irregularly taken, had been ferrum reductum and an acid pepsin mixture

with meals. We have included this case, though Dr. Price-Jones, who examined blood films of December, 1932, and February, 1933, wrote that the extreme degree of poikilocytosis did not suggest simple microcytic anaemia.

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SEASONAL INCIDENCE OF ECLAMPSIA IN HONG-KONG

BY

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It is generally believed that the incidence of eclampsia is affected by climatic changes—for example, Tweedy¹ states that the disease is more common (in Ireland) when the weather is cold and damp, but that it occurs in hot countries more frequently than in countries with a temperate climate. He suggests that this may be connected with an insufficient consumption of water by the patient. It is exceedingly difficult to say how frequently any disease occurs among the Chinese. I know that a search of the more reliable hospital records in this colony has only yielded the histories of ninety-seven cases of eclampsia extending over an average period of, say, six years, the total population being upwards of a million. There have probably been many more cases during this period which have never found their way to any hospital.

It occurred to me that it might be of interest to compare the actual incidence of eclampsia and severe albuminuria in the different months of the year, Hong-Kong being a semi-tropical place, which has very definite seasonal changes. Unfortunately our cases are too few to warrant any sweeping deductions being made, but their publication may perhaps be of interest for comparison with statistics of the incidence of the disease in other parts of the world.

The climate of Hong-Kong may be described as semi-tropical; the winter is cool and dry, and the summer is hot and very damp. Officers of the Army and other much-travelled people tell us that the summer climate is unusually enervating, even for a tropical country. Although the temperature itself is never excessively high, the average humidity is very great. To go into further detail, we find that the months of January and February are more or less cold, the sky is frequently overcast, but there is little rain. Some time late in March a change occurs; the wind, which in winter usually blows from the north-east, turns to the south, or south-west, the temperature rises, the air becomes damp, and there are frequent showers. The weather does not become definitely hot until about the first week in May, and from then until the middle of September the hot and damp weather lasts. Throughout this time the rain comes at irregular intervals, usually associated with the proximity of a typhoon. About the middle of September a change is again noticeable, the wind, having been more or less southerly all the summer, tends to change to the north-east again. During the months of October, November, and December there is almost constant sunshine, the air becomes dry, and the temperature falls as Christmas approaches. The times at which seasonal